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US/1

# PATENT COOPERATION TREATY

PCT

COMMUNICATION OF  
INTERNATIONAL APPLICATIONS

(PCT Article 20)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
(Box PCT)  
Crystal Plaza 2  
Washington, DC 20231  
ETATS-UNIS D'AMERIQUE

Date of mailing:

29 January 1998 (29.01.98)

in its capacity as designated Office

The International Bureau transmits herewith copies of the international applications having the following international application numbers and international publication numbers:

International application no.:

PCT/IL97/00193

International publication no.:

WO97/47270

**CORRECTED VERSION  
VERSION CORRIGEE**

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer:

J. Zahra

Ex parte ALTERMATT, 183 USPQ 436 (BdPatApp&Int 1974)

**Ex parte ALTERMATT**

**(BdPatApp&Int)**

**· 183 USPQ 436**

**· 9/24/1974 · 3/11/1974**

**Patent issued Sept. 24, 1974**

**Opinion dated Mar. 11, 1974**

**U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences**

**Headnotes**

**PATENTS**

**1. Claims — Indefinite — Chemical (§ 20.553)**

Claims are not indefinite under second paragraph of 35 U.S.C. 112 because of inclusion of "a radical of an aromatic diazo component," "substituted alkylene," "substituted phenylene," "alkoxy," "alkyl," "acyl," "acyloxy," and "acylamino."

**2. Claims — Specification must support (§ 20.85)**

Claims containing "alkyl," "alkoxy," "alkylene," and "a divalent hydrocarbon radical" are supported by specification since terms are no broader than broadest written description of invention in specification; moreover, no reason is provided why any particular alkyl, alkoxy, alkylene, or hydrocarbon group would be expected to be inoperative in environment of claimed dyes.

**Particular patents—Disazo Compounds**

3,838,145, Altermatt, Disazo Compounds of Low Water Solubility, claims 3 to 16 of application allowed.

**Case History and Disposition:**

Appeal from Group 123.

Application for patent of Ruedi Altermatt, Serial No. 838,665, filed July 2, 1969. From decision rejecting claims 3 to 16, applicant appeals (Appeal No. 144-27). Reversed.

**Attorneys:**

IRWIN M. AISENBERG, Washington, D. C., for applicant.

**Judge:**

Before MAGIL and SEROTA, Examiners in Chief, and MCKELVEY, Acting Examiner in Chief.

**Opinion Text**

**Opinion By:**

MCKELVEY, Acting Examiner in Chief.

This is an appeal from the final rejection of claims 3 through 16 of appellant's application.

The invention relates to dye compounds

Page 437

which are useful for dyeing synthetic fibers, such as fibers made from polyamides or cellulose triacetate (specification, page 13). The dye compounds are also said to "reserve wool and cotton well" (specification, page 13).

Claim 13 is the only independent claim in the case. Claims 3 through 12 and 14 through 16 depend directly or indirectly from claim 13. Claim 13 calls for azo dyes free from carboxylic acid and sulphonic acid groups having the formula:

*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*

A, B, D, X, and R 1 through R 8 are defined in the claim which need not be reproduced here.

In his answer, the examiner relies on the following reference:

Kirby 2,330,291 Sept. 28, 1943

The following rejections are before us:

- (1.) Claims 3 through 16 stand rejected under 35 U.S.C. 103 over Kirby, and
- (2.) Claims 13 and 14 stand rejected under 35 U.S.C. 112, first and second paragraphs.

**1. Disposition of Rejection Based on Kirby**

Kirby discloses dyes. The dyes disclosed by Kirby and the claimed dyes both have what will be referred to as a bridging group. The bridging group is attached at either end to a phenyl or substituted phenyl group

which is in turn attached to a azo group. The claimed dyes differ from the dyes disclosed by Kirby in that the bridging group of the claimed dyes is attached to the phenyl or substituted phenyl groups via an amino group, whereas the bridging group of the dyes disclosed by Kirby is attached to the phenyl or substituted phenyl groups via an amide group. According to the examiner, a representative bridging group disclosed by Kirby has the formula:

*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*

whereas a representative bridging group of the claimed dyes would have the formula:

*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*

It will be noted, with respect to the representative bridging groups that the Kirby bridging group has terminal amide groups and the bridging group of the present dyes has terminal amine groups.

The examiner holds that the claimed dyes " \* \* \* are so closely related to the analogous compounds of the reference as to be structurally obvious therefrom \* \* \* ." The examiner further holds that "[a]ny differences in structure [between the claimed dyes and the dyes of Kirby] would be but obvious modifications to one of ordinary skill in the art."

The record will not support the above-mentioned holdings of the examiner. There is nothing in the prior art relied upon by the examiner which teaches, suggests, or otherwise provides a motive for changing the terminal amide groups of Kirby to amine groups. Accordingly, we are unable to conclude that the examiner has made out a prima facie case of obviousness on this record. We will further note that the dyes of Kirby appear to be useful for dyeing wool and cotton (page 4 column 1, lines 39-41 and page 5, column 1, line 17), whereas according to appellant the instant dyes are said to " \* \* \* reserve <sup>1</sup> wool and cotton well" (specification, page 13).

The decision of the examiner rejecting claims 3 through 16 under 35 U.S.C. 103 over Kirby is reversed.

## **2. Disposition of Rejection Based on Section 112**

[1] The examiner held that claims 13 and 14 were unpatentable under 35 U.S.C. 112, first and second paragraphs, because various terms, such as "a radical of an aromatic diazo component", "substituted alkylene", "substituted phenylene", "alkoxy", "alkyl", "acyl", "acyloxy", and "acylamino" are indefinite, 35 U.S.C. 112, second paragraph. Based on his holding, the examiner concludes that one skilled in the art would not know the limits of the patent protection sought. We have carefully reviewed the examiner's position vis-a-vis that of appellant on the question of the definiteness of the above-mentioned terms. Such review leads us to conclude that the claims are definite and that one skilled in the art would know what the claims cover. Compare *General Electric Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369, 37 USPQ 466, 468 (1938).

[2] The examiner has also held that the specification will not support claims containing the terms "alkyl", "alkoxy", "alkylene", and "a divalent hydrocarbon radical", 35 U.S.C. 112, first paragraph. The claims which

contain these terms are no broader than the broadest written description of the invention in appellant's

specification. Moreover, the examiner has provided no reason why any particular alkyl, alkoxy, alkylene, or hydrocarbon group would be expected to be inoperative in the environment of the claimed dyes. Compare *In re Robins*, 57 CCPA 1321, 429 F.2d 452, 166 USPQ 552 (1970).

The decision of the examiner rejecting claims 13 and 14 under 35 U.S.C. 112, first and second paragraphs, is reversed.

### **Footnotes**

**Footnote 1.** "reserve" is defined in Blackshaw et al. Dictionary of Dyeing and Textile Printing (Great Britain, Arrowsmith Ltd., 1961), p. 146, as: "To leave undyed certain fibres or threads in a union material, or in a material containing EFFECT THREADS (q.v.). The objective is achieved by selecting those dyes which have substantivity for the fibre to be coloured but which have no substantivity for the fibre to be reserved."

**- End of Case -  
21123**

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MARK M. FRIEDMAN  
SAMUELOFF BUILDING  
7 HOAMANIM STREET  
67857 TEL AVIV  
ISRAEL

PCT

NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

21 APR 1998

Applicant's or agent's file reference

1343/1

## IMPORTANT NOTIFICATION

International application No.

PCT/IL97/00193

International filing date (day/month/year)

15 JUNE 1997

Priority Date (day/month/year)

14 JUNE 1996

Applicant:

ARAD, DORIT

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IFEA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3256

Authorized officer

EHEMEZER SACKLEY

Telephone No. (703) 305-1235

Form PCT/IFEA/415 (July 1992)\*

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 76)

Applicant's or agent's file reference 104301	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IL97/00193	International filing date (day/month/year) 15 JUNE 1997	Priority date (day/month/year) 14 JUNE 1996
International Patent Classification (IPC) or national classification and IPC. Please See Supplemental Sheet.		
Applicant ARAD, DORIT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 12 JANUARY 1998	Date of completion of this report 25 FEBRUARY 1998
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer BENEZER JACKBY <i>Benezer Jackby</i>
Facsimile No. (703) 305-3230	Telephone No. (703) 308-1235

Form PCT/PEA/40S (cover sheet) (January 1994)\*

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/L97/00193

## 1. Basis of the report

1. This report has been drawn on the basis of *Substantive sheets which have been furnished to the receiving Office in response to an invitation under Article 16 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*

- ☒ the international application as originally filed.
- ☒ the description, pages 1-33 as originally filed.  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_  
pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the claims, Nos. 1-13 as originally filed.  
Nos. NONE , as amended under Article 19  
Nos. NONE , filed with the demand  
Nos. NONE , filed with the letter of \_\_\_\_\_  
Nos. \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the drawings, sheets/fig NONE as originally filed  
sheets/fig NONE , filed with the demand  
sheets/fig NONE , filed with the letter of \_\_\_\_\_  
sheets/fig \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

## 2. The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box Additional observations below (Rule 70.2(c)).

## 4. Additional observations, if necessary:

NONE



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL97/00193

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

## 1. STATEMENT

Novelty (N)

Claims 1-13

YES

Claims NONE

NO

Inventive Step (IS)

Claims 1-13

YES

Claims NONE

NO

Industrial Applicability (IA)

Claims 1-13

YES

Claims NONE

NO

## 2. CITATIONS AND EXPLANATIONS

Claims 1-13 meet the criteria set out in PCT Article 35(2)(4), because the prior art does not teach or fairly suggest the use of the instant compounds (N-1-alkyl-2-oxo-2,3,4,5-tetrahydro-1H-1,5-benzodiazepin-3-yl)-amides with anti-viral activity.

NEW CITATIONS

NONE

Form PCT/PEA/409 (Box V) (January 1994)\*

Form PCT/PEA/409 (Supplemental Box) (January 1994)\*

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL97/00193

## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Sheet 10

Continuation of Boxes I - VIII

## CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(s) A61K 31/56, C07C 305/00, 69/56, 255/00, 321/00, 315/00, 229/00, 275/00, 313/00, 261/00 and US Cl.: 514/112, 115, 117, 120, 124, 554/38, 268, 395, 560/9, 11, 15, 19; 564/53, 102, 105, 107

WO 97.47270  
PCT/IL97/00193

## PATENT COOPERATION TREATY

PCT

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(a) first sentence)

From the INTERNATIONAL BUREAU

To:

FRIEDMAN, Mark, M.  
Samueloff Building  
Hachmanim Street 7  
67897 Tel Aviv  
ISRAEL

Date of mailing (day/month/year)

18 December 1997 (18.12.97)

Applicant's or agent's file reference

10431

## IMPORTANT NOTICE

International application No.

PCT/IL97/00193

International filing date (day/month/year)

15 June 1997 (15.06.97)

Priority date (day/month/year)

14 June 1996 (14.06.96)

Applicant

ARAB, Dore et al

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 47, the international application to the following designated Offices on the date indicated at one as the date of mailing of this Notice:

AU, BR, CA, CN, EP, IL, JP, KR, RU, NO, PL, SK, US

In accordance with Rule 47.1(a) first sentence, these Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Offices.

2. The following designated Offices have waived the requirement for such communication at this time:

AL, AM, AP, AT, AZ, BA, BE, BG, BY, CH, CL, CZ, DE, DK, EA, EE, ES, FI, GB, GE, HU, IS, KE, KC, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NZ, OA, PT, RO, RU, SD, SE, SG, SI, TJ, TM, TR, TT, UA, UG, UZ, VN, YJ

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a)-(b)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 18 December 1997 (18.12.97) under No. WO 97/47270.

## REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 18 months from the priority date.

It is the applicant's sole responsibility to monitor the 18-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

## REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 30 months (or 36 months or later in some Offices), perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB 281 (Notification of Receipt of Record Copy) and Volume I of the PCT Applicant's Guide.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Telephone No. (41) 22 34 35 35

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Authorized officer

J. Zahra

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PCT/IB/97

PCT/IL97/00193

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF RECEIPT OF  
RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU

To:

FRIEDMAN, Mark, M.  
Samueloff Building  
7 Haomanim Street  
67897 Tel Aviv  
ISRAEL

Date of mailing (day/month/year) 26 June 1997 (26.06.97)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 1043/1	International application No. PCT/IL97/00193

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and state(s) for which they are applicants:

ARAD, Dorit (all designated States)  
ELIAS, Yuraf et al (for US)

International filing date : 15 June 1997 (15.06.97)  
Priority date(s) claimed : 14 June 1996 (14.06.96)  
Date of receipt of the record copy  
by the International Bureau : 26 June 1997 (26.06.97)

List of designated Offices:

AP, GH, KL, LS, MW, SD, SZ, UG  
FA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
EP, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
OA, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  
National AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL,  
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,  
SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU

## ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- ☒ time limits for entry into the national phase;  
☒ confirmation of precautionary designations;  
☐ requirements regarding priority documents.

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer: P. Regis
Facsimile No. (41-22) 740.34.05	Telephone No. (41-22) 336.85.36

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL97/00193

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : Please See Extra Sheet.

US CL : Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/112, 115, 117, 120, 124; 558/38, 268, 395; 560/9, 11, 15, 19; 564/33, 102, 105, 107

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAS ONLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KENNY et al. "In Vitro and In Vivo Antipicornavirus Activity of Some Phenoxypyridinecarbonitrile", December 1985, Antimicrobial Agents and Chemotherapy. Vol. 28, No. 6, pages 745-750.	1-13

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*B* earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

16 SEPTEMBER 1997

Date of mailing of the international search report

04 DEC 1997

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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Washington, D.C. 20231

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Authorized officer

EBENEZER SACKKEY

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL97/00193

## A. CLASSIFICATION OF SUBJECT MATTER:

IPC (6):

A61K 31/66; C07C 305/00, 69/96, 255/00, 321/00, 315/00, 229/00, 275/00, 313/00, 261/00

## A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

514/112, 115, 117, 120, 124; 558/38, 268, 395; 560/9, 11, 15, 19; 564/33, 102, 105, 107